

ECM Calibration: Enhancement to Shifting Performance

Service
Category Drivetrain

Section Automatic Transmission/Transaxle

Market USA

Toyota Supports
ASE Certification 

Applicability

| YEAR(S) | MODEL(S) | ADDITIONAL INFORMATION |
|-------------|--------------|--|
| 2008 – 2011 | Land Cruiser | Transmission(s): 6AT VDS(s): HY05J, HY7AJ |

Introduction

Some 2008 – 2011 model year Land Cruiser vehicles may exhibit a harsh shift on acceleration below 20 mph during the 2-1 downshift. The Engine Control Module/ECM (SAE term: Powertrain Control Module/PCM) calibration has been revised. Use the following repair procedure to address this condition.

Warranty Information

| OP CODE | DESCRIPTION | TYPE | TIME | MODEL YEAR | OFF | T1 | T2 |
|---------|----------------------------|------|------|-------------|---|----|----|
| EG1223 | Reprogram ECM (PCM) Engine | 4WD | 0.4 | 2008 – 2009 | 89661-60G60 89661-60G61 89661-60G62 89661-60G63 89661-60G64 | 04 | 99 |
| | | | | 2010 – 2011 | 89661-60K80 89661-60K81 | | |

APPLICABLE WARRANTY

- This repair is covered under the Toyota Federal Emission Warranty. This warranty is in effect for 96 months or 80,000 miles, whichever occurs first, from the vehicles in-service date.
- Warranty application is limited to occurrence of the specified condition described in this bulletin.

ECM Calibration: Enhancement to Shifting Performance

Parts Information

| MODEL YEAR | PREVIOUS PART NUMBER | CURRENT PART NUMBER | PART NAME | QTY |
|-------------|---|---------------------|--------------------------------|-----|
| 2008 – 2009 | 89661-60G60 89661-60G61 89661-60G62 89661-60G63 89661-60G64 | 89661-60G65 | ECM (PCM) | – |
| 2010 – 2011 | 89661-60K80 89661-60K81 | 89661-60K82 | | |
| 2008 – 2011 | 00451-00001-LBL | Same | Authorized Modification Labels | 1 |

NOTE

- The ECM (PCM) should NOT be replaced as part of the repair procedure.
- Authorized Modification Labels may be ordered in packages of 25 from the Materials Distribution Center (MDC) through Dealer Daily – Dealer Support Materials Orders.

Calibration Information

| MODEL YEAR | PREVIOUS CALIBRATION ID | NEW CALIBRATION ID | VDS |
|-------------|--|--------------------|-------|
| 2008 – 2009 | 360C2000 360C2100 360C2200 360C2300 360C2400 | <u>360C2500</u> | HY05J |
| 2010 – 2011 | 360D8000 360D8100 | <u>360D8200</u> | HY7AJ |


ECM Calibration: Enhancement to Shifting Performance

Required Tools & Equipment

| REQUIRED EQUIPMENT | SUPPLIER | PART NUMBER | QTY |
|---|----------|-----------------------------|-----|
| TIS Techstream* or Techstream Lite NOTE: Software version 7.31.003 or later is required. | ADE | TSPKG1 or TSLITEDLR01 | 1 |

NOTE

- Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.
- The Diagnostic Tester is NOT recommended for flash reprogramming with this calibration file. Please use TIS Techstream or an approved J2534 interface to perform this update. Visit techinfo.toyota.com for more information regarding J2534 reprogramming.



| SPECIAL SERVICE TOOLS (SST) | PART NUMBER | QTY |
|---------------------------------|--------------------|-----|
| GR8 Battery Diagnostic Station* | <u>00002-MCGR8</u> | 1 |

NOTE
Additional SSTs may be ordered by calling 1-800-933-8335.

* Essential SST.

ECM Calibration: Enhancement to Shifting Performance

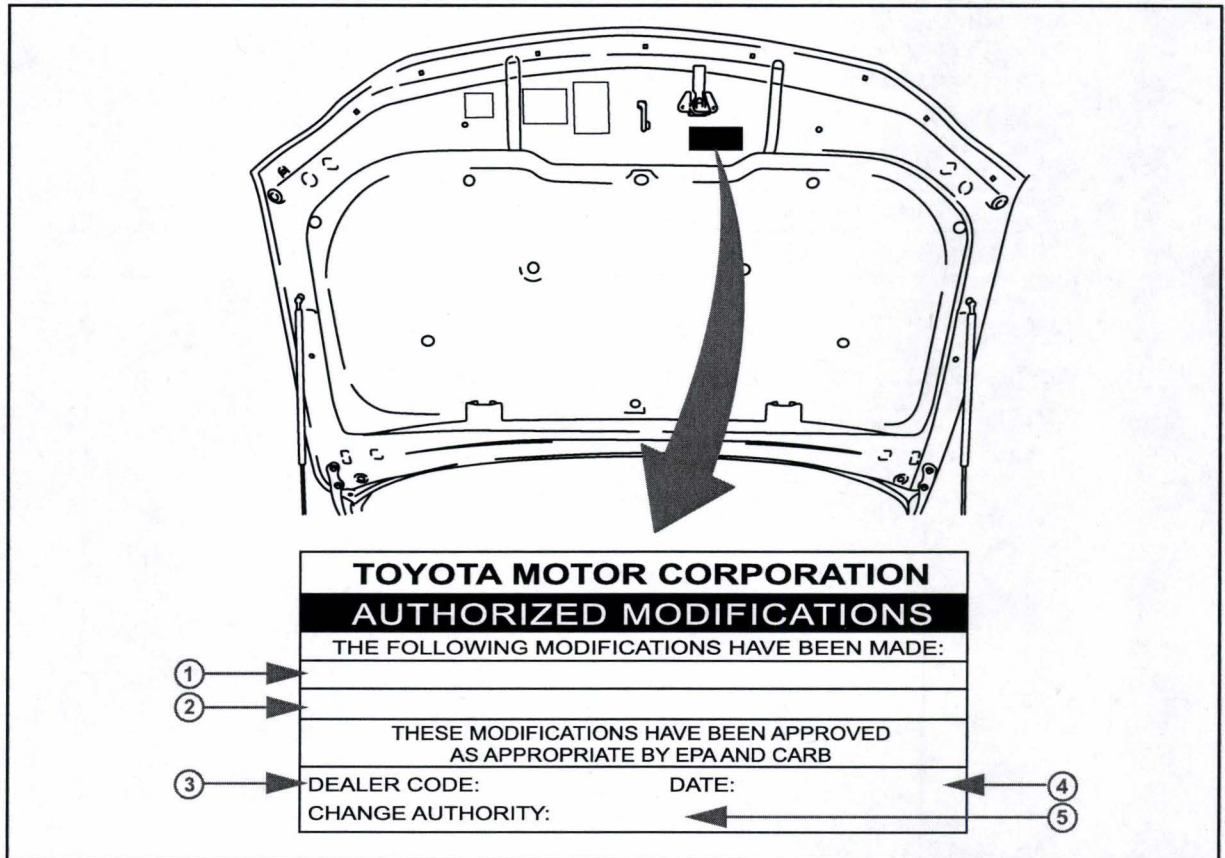
Repair Procedure

1. Test drive the vehicle and confirm there is a harsh shift on acceleration below 20 mph.

NOTE
 Confirm correct transmission fluid level by following the procedures in the Repair Manual **BEFORE** reprogramming the ECM (PCM) since incorrect fluid level can also cause shifting issues.

2. Check for the Authorized Modifications Label affixed to the vehicle in the location shown in Figure 1. Confirm if the ECM (PCM) calibration has been updated. If the calibration ID listed is NOT the latest ECM (PCM) calibration — go to step 3.

Figure 1. Location of Authorized Modifications Label on 2008 – 2011 Land Cruiser



| | |
|---|---|
| 1 | Replacement ECM (PCM) Part Number (i.e., 89661-60G65) |
| 2 | New Calibration ID(s) (i.e., 360C2500) |
| 3 | Dealer Code |

| | |
|---|----------------|
| 4 | Date Completed |
| 5 | This SB Number |

ECM Calibration: Enhancement to Shifting Performance

Repair Procedure (Continued)

3. Flash reprogram the ECM (PCM).

NOTE

- The GR8 Battery Diagnostic Station **MUST** be used in Power Supply Mode to maintain battery voltage at 13.5 volts while flash reprogramming the vehicle.
- For details on how to use the GR8 Battery Diagnostic Station, refer to the GR8 Instruction Manual located on the Technical Information System (TIS), *Diagnostics – Tools & Equipment – Battery Diagnostics*.

Follow the procedures outlined in Service Bulletin T-SB-0064-10, "Techstream ECU Flash Reprogramming Procedure", and flash the ECM (PCM) with the NEW calibration file update.

4. Install the Authorized Modifications Label.

A. Using a permanent marker, enter the following information on the label:

- ECM part number [Refer to the **Parts Information** section for the **CURRENT PART NUMBER**]
- Calibration ID(s) [Refer to the **Calibration Identification Chart** for the **NEW CALIBRATION ID**]
- Dealer Code
- Repair Date
- Change Authority [**This bulletin number**]

B. Affix the Authorized Modifications Label to the vehicle at the location shown in Figure 1. The Authorized Modifications Label is available through the MDC, P/N 00451-00001-LBL.

5. Test drive the vehicle and perform transmission initialization.

Refer to TIS, applicable model and model year Repair Manual:

- 2008 / 2009 / 2010 / 2011 Land Cruiser:
Drivetrain – Automatic Transmission/Transaxle – "AB60F Automatic Transmission/Transaxle: Automatic Transmission System: Initialization"